

*Newsletter of the Colorado Native Plant Society*

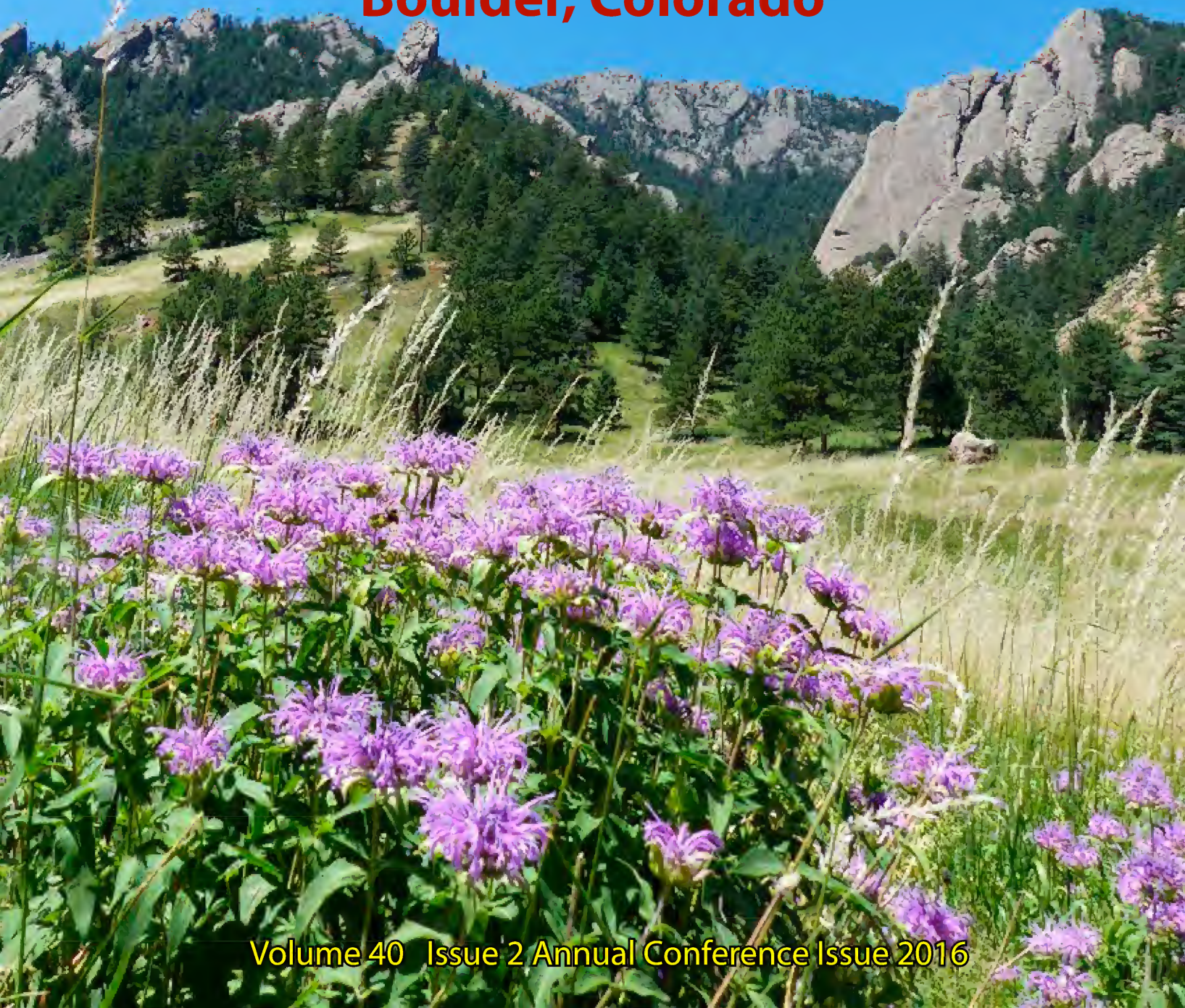
# **Aquilegia**

## **Annual Conference 2016**

**Forty Years of Change: Plants, People, Places**

**September 23, 24, and 25, 2016**

**Boulder, Colorado**



Volume 40 Issue 2 Annual Conference Issue 2016

## **The Colorado Rare Plants Symposium & CoNPS Annual Conference will be held at the Sustainability, Energy, and Environment Complex (SEEC) MacAllister Bldg., 4001 Discovery Dr., Boulder, Colorado 80303**

The CoNPS Annual Conference is the primary state gathering and annual fund-raiser for the Colorado Native Plant Society, a non-profit organization. Proceeds from the conference support CoNPS' wide-ranging projects including education, conservation, native plant gardening, and botanical and horticultural publications and activities. Although all leadership and committee positions are held by volunteers, CoNPS does have two part-time employees, Linda Smith and Jen Bousset, who play an essential role in supporting the volunteers in achieving the mission of CoNPS, "furthering the knowledge, appreciation, and conservation of native plants and habitats of Colorado through education, stewardship, and advocacy."

The early bird registration fee of \$40 (for CoNPS members) and \$50 (for non-members) will include a day of lectures by a number of well-known speakers and a social with appetizers, anniversary cake, and non-alcoholic beverages. For those who do not want to bring their lunch, a tasty lunch buffet will be available for \$10 per person\*. The second day will feature an amazing array of field trips led by experts. On Friday, September 23rd, enjoy the Colorado Rare Plant Symposium, where you can learn about the conservation work of scientists from a variety of organizations and agencies, see gorgeous slides and learn the status of many of the rare and imperiled plants of Southwest Colorado. The registration fee for the Colorado Rare Plant Symposium is only \$10 for the full day. CU does charge for parking: \$9 per car for single day (Friday or Saturday) and \$16 per car for both Friday and Saturday. A link to purchase a parking pass online will be available before the meeting.

There are many benefits to CoNPS membership, including lower rates for the annual meeting, workshops, field seminars and other events, advance notice about events, and receipt of our ENewsletter (every 10 days) and our magazine, *Aquilegia: Newsletter of the Colorado Native Plant Society* (4 to 5 times a year). If you are not already a member, you can join at <https://conps.org>. Membership is \$17 for students and seniors, \$25 for individuals, and \$35 for family/dual memberships.

### **Registration Rates for Annual Conference (Sept. 24-25)**

Early Bird Price for CoNPS members (before August 29) .....	\$40
Early Bird Price for non-members (before August 29).....	\$50
Regular Price for CoNPS members (August 29 and later).....	\$50
Regular Price for non-members (August 29 and later).....	\$60
Lunch Buffet on Saturday.....	\$10

*Sunday Field Trips Are Free (information and sign-up on CoNPS Event Calendar for September 25)*

### **Registration Rate for Annual Colorado Rare Plant Symposium (Sept. 23)...\$10**

***\*The caterer will provide a buffet of sandwiches, salads, fresh made salad dressings, cookies, and ice tea and lemonade. It's mostly organic and all made from scratch. Vegetarian, gluten-free, and dairy-free options will be available.***

Donations are also gratefully accepted:

- Donations to help support the conference
- **New!** Donations for the Scholarship fund. This fund supports registration fees for the Annual Conference, workshops, and field seminars for income-restricted members & non-members. Applications for scholarships will be evaluated by the Scholarship committee. **Scholarship applications are on the website.**
- Donations for the Marr Fund (supports native plant research)
- Donations for the Steinkamp Fund (supports CO rare plant research)

**Register Online at <https://conps.org>**

**Go to the Event Calendar on the website <https://conps.org>**

**Go to Sept. 23, Sept. 24, and Sept. 25 to register for the associated event**

# 13th Annual Colorado Rare Plant Symposium

Friday

Conservation Efforts and Status Review  
Imperiled Plants of Southwest Colorado

Friday

**Friday, Sept. 23, 2016 8:30 a.m. - 4:30 p.m.**

4001 Discovery Dr., Boulder CO, in Auditorium C120, MacAllister Bldg.,  
Sustainability, Energy, and Environment Complex (SEEC)

## SCHEDULE

- 8:30 Registration
- 9:00 Introduction and ground rules – Jennifer Neale, DBG
- 9:15 Review of Southwest Colorado G2 plant species: Status review, current conservation efforts and priority conservation action needs - Jill Handwerk, CNHP
- 10:30 Break
- 10:45 Breakout Session : Group input for T&E, G1, and remaining G2 & G3 plant species of Colorado: Status review, survey results, threats and current conservation efforts
- 11:30 Lunch (on your own)
- 1:00 Breakout Session: Highlights and priority conservation action needs for the coming year
- 2:00 Demonstration of interactive county map of rare plants
- 2:15 Demonstration of regional interactive herbaria
- 2:30 Break
- 2:45 Field Season Highlights: 1) *Mimulus gemmiparus* surveys and reintroduction  
2) Browns Canyon BioBlitz
- 3:00 Conservation Success: *Ipomopsis polyantha*
- 4:30 Adjourn

## CoNPS Reception & Special Tours Friday 5 - 7 p.m.

**CU Museum of Natural History and Norlin Library, 2nd Floor Science**



The CU Museum of Natural History is currently displaying the RARE II Imperiled Plants of Colorado exhibit by members of the Rocky Mountain Society of Botanical Artists. A reception with snacks and a tour of the RARE II exhibit will take place in the museum. There will also be tours of "The Naturalist" exhibit on the life of William A. Weber at Norlin Library (2nd floor Science) and Shakespeare's Bouquet (botanical art by students of Denver Botanic Gardens' School of Botanical Art and Illustration) on the 3rd floor. More information will follow in CoNPS E-News.

Left: Willy Weber (1930) from "The Naturalist" Exhibit. Photo courtesy University of the Weber Family Right: RARE II Exhibit. Photo courtesy CU Museum of Nat. History.



# 40th Colorado Native Plant Society Annual Conference 2016

Saturday

Saturday

Forty Years of Change: Plants, People, Places, 1976 -2016

**Saturday, Sept. 24, 2016 8:15 a.m. - 7:00 p.m.**

4001 Discovery Dr., Boulder CO, in Auditorium C120, MacAllister Bldg.  
Sustainability, Energy, and Environment Complex (SEEC)

## SCHEDULE

<b>8:15 - 8:55</b>	<b>Registration, Book Sale, Silent Auction, Photo Contest</b>
9:00 - 9:05	Welcome to University of Colorado - Bill Bowman
9:05 - 9:10	Welcome to CoNPS Annual Conference 40th Anniversary - Charlie Turner
9:10 - 9:30	40 Years of Change in Bioinformatics - Dieter Wilken
9:35 - 9:45	Recognition of the Founders and Early Members
9:45 - 10:05	How and Why CoNPS Came to Be- Discussion by Founders
10:10 - 10:30	Colorado and the World – Bill Weber
<b>10:35 - 11:00</b>	<b>Break - Book Sale, Silent Auction, Poster Session, Vendors, Photo Contest</b>
11:00 - 11:30	The Flies, Birds, and Bees That Pollinate Our Wildflowers – David Inouye
11:35 - 11:55	Alpine Plants and the Changing Environment – Bill Bowman
12:00 – 12:10	Tass Kelso: A Remarkable Life – Dave Anderson and Jill Handwerk
12:10 - 12:15	CoNPS Special Merit Award - Jill Handwerk, recipient
<b>12:15 - 1:15</b>	<b>Lunch (bring your own) or Buffet (pre-purchased available for \$10), Book Sale, Silent Auction (Bids close at 12:55), Poster Sessions, Vendors, Photo Contest</b>
1:15 – 1:35	Return of the Native – Panayoti Kelaidis
1:40 – 2:10	Forty Years of Progress in Pollination Biology, and What It Means for Citizen Scientists – Nick Waser and Mary Price
2:15 – 2:35	Forty Years of Change at Rocky Mountain National Park – John Emerick
2:40 – 3:00	Where has Plant Ecology Gone since 1976? – David Buckner
3:05-3:25	Botany Is Not Dead But This Plant Is: The Importance of Herbaria and Regional Floras for the 21st Century and Beyond – Jennifer Ackerfield
<b>3:30 - 3:50</b>	<b>Break – Book Sale, Vendors, Photo Contest (Voting ends at 3:40 p.m.), Pay For and Pick Up Silent Auction Items</b>
3:50 - 5:00	Botany Track and Horticulture Track (running concurrently - see schedule - next page)
<b>5:00 - 7:00</b>	<b>CoNPS 40th Anniversary Party &amp; Celebration of Colorado Native Plant Appreciation Week (in MacAllister Building)</b>



*Note: 3 - 7 p.m. Pick up plants ordered through CoNPS online native plant sale. Location to be announced. Orders for native plants can be placed using the CoNPS website through September 15th.*

# SCHEDULE (continued)

**NOTE: There are 2 tracks running simultaneously from 3:50 to 5:00 pm.**

## TRACK 1 Botany-Academic

- 3:50 - 4:10 Who We Are Is What We Leave Behind – Jack Carter
- 4:15 - 4:35 Using Course - Based Research Experiences to Advance Our Understanding of the Flora of Colorado – Leo Bruederle
- 4:40 – 5:00 Lightning Talks on Research – 8 University Students (to be selected)

## TRACK 2 Horticulture

- 3:50 -4:10 Benefits of Native Plants in the Garden – Irene Shonle
- 4:15 - 4:35 Conservation of Colorado Flora on Rooftops – Jen Bousset
- 4:40 – 5:00 Installing Colorado Native Plants in the Landscape – Alison Peck

**5:00 – 7:00 CoNPS 40th Anniversary Party (free) -- in MacAllister Building**

**Note: Sat. 4:00 – 7:00 p.m. Online Plant Sale Pickup (for Online Plant Sale – Place order by Sept. 15!)**

*Sunday*

## FIELD TRIPS SUNDAY SEPTEMBER 25

*Sunday*

Meet for field trips at the trailheads (NOT at a central location). Directions to the parking lots at the trailheads will be emailed to participants before the field trips and will be available in hard copy at the Registration Desk. If any field trips are not full, it might be possible to sign up at registration but there is no guarantee there will be openings.

### Sunday morning – Field Trips/Tour (9 a.m. – noon)

- Bee-Watching at Denver Botanical Garden (DBG) at Chatfield, Littleton - Carol Kearns and Diana Oliveras
- Rabbit Mountain Open Space, Boulder - Susan Spackman Panjabi
- Ranson/Edwards Homestead Open Space (13 miles south of Boulder) - Tom Schweich
- Exploring the Foothills Forest - Shortgrass Prairie Transition: A Visit to Boulder Mountain Park - John Emerick
- University of Colorado Herbarium Tour - Tim Hogan
- Keying the Plants of Autumn - Jennifer Ackerfield
- Fall Colors and Tallgrass Prairie Biodiversity - Lynn Riedel & Lynne Sullivan
- Ancient Big Bluestem Grasslands of the South Boulder Area – David Buckner

### All Day (9 a.m. - 5 p.m.)

Secrets of Castlewood Canyon - Jeanne Willson (9-5)

### Sunday afternoon - Tours/Field Trip

- Tour of Harlequin's Gardens & Fall Plant Sale, Boulder - Mikl Brawner (2-4 p.m.)
- Tour of High Plains Environmental Center & Plant Sale, Loveland - Jim Tolstrup (1-4 p.m.)
- Tallgrass & Wildflower Seed Collection in Boulder's Prairies: A Working Field Trip - Lynn Riedel & Amy Ansari (1-4 p.m.)

## Annual Photo Contest!

Enter Now! One photo per category! First prize in each category is \$50. Winning photos will be featured in *Aquilegia* and on the CoNPS webpage. Members will vote for their favorite photos at the Annual Conference.

### Categories:

- Colorado Native Plant Landscapes
- Colorado Native Plants
- Artistic (Native Plants or Landscapes)
- Colorado Native Plants & Wildlife (including insects/pollinators)

Send in 8 x 10" or 8.5 x 11" photos. You can submit one for each category. For full details see <https://conps.org/wp-content/uploads/2015/04/photo-contest-rules-2015-2.pdf> **Deadline: August 31, 2016**

# SATURDAY, SEPTEMBER 24th

## SPEAKERS & ABSTRACTS

### 40 Years of Change in Bioinformatics

**Dieter Wilken 9:10 - 9:30 a.m.**

A long time ago, in what seems to be a “galaxy far, far away”, gathering and synthesizing information on the distribution, abundance, and rarity of plants took patience and much effort. Nomenclature, the names of plants, was relatively stable. Herbarium specimens, books, and scientific journals were essential, but sometimes difficult to access. Information on rare species often seemed frustratingly deficient. However, the development of computers and data storage opened up new highways to information retrieval, resulting in a more precise understanding of the native flora. Advances in systematics, the study of evolutionary relationships, also depended on the computer as a tool in applying the principles of cladistics and the analysis of molecular data. In some cases, cladistic analyses confirmed conclusions based on traditional evidence, but in others, new hypotheses regarding relationships were revealed. Concomitant changes in circumscription and nomenclature sometimes were logical and readily accepted, but in others, their application has been exasperating! Regardless of such change, botanists of all kinds have a wealth of increasingly informative data sources, more efficient access, and a wide array of new interpretative tools. Such efforts have greatly enhanced our ability to conserve diversity.



Photo Courtesy of Dieter Wilken

*Dr. Dieter Wilken is a Research Associate at the Santa Barbara Botanic Garden, where he served as Director of Research and Conservation prior to retiring in 2013. He continues as a member of the California Native Plant Society's Rare Plant Program committee. Dieter earned a Ph.D. in Biology from the University of California, Santa Barbara, and later served on the faculty at Occidental College and Colorado State University. From 1990 to 1992, he managed publication of the first Jepson Manual at UC Berkeley, and continues as a member of the Editorial Board. Dieter has conducted floristic studies, systematic research on several groups of western North American plants, especially the Phlox family, and studies of rare plant reproductive biology.*

### How and Why CoNPS Came To Be

**CoNPS Founders 9:45- 10:05 a.m.**

CoNPS founders will discuss the meeting that inspired the formation of the Colorado Native Plant Society and the early years of CoNPS.

Dieter Wilken will lead the discussion.

Some of the founding and early members who will be present include:

Bill Weber, 2nd President of CoNPS

Ruby Marr, Spouse of 1st President of CoNPS, John Marr; John was President of the founding Board

Dieter Wilken, Secretary of the Board, Membership Chair of CoNPS; Member of founding Board

Beth Painter, Member of 1st Membership Committee

J. Scott Peterson, 1st Chair of Publications Committee; Newsletter Editor; Member of founding Board

David Buckner, 1st President of the Boulder Chapter

Panayoti Kelaidis, 2nd Secretary of the Board

Karen Hollweg, 1st Chair of the Horticulture & Rehabilitation Committee



## Colorado and the World

### William A. Weber 10:10 – 10:30 a.m

Bill Weber wishes to keep the topic of his talk a secret, but rest assured that what he has to say will inform and inspire.

*William Weber is Professor and Curator Emeritus of the Herbarium of the University of Colorado Museum of Natural History and Fellow of the Linnean Society of London. Born in New York City on November 16, 1918, Bill has been an ardent birder from a young age and founded the Sialis Bird Club. After receiving his doctorate in 1946 from Washington State University, he joined the Biology Department at University of Colorado. In 1962, he became a full Professor of Natural History at the University of Colorado Museum, where he was Curator of the Herbarium.*



Photo by @ Heather Harris

*After retiring in 1990, Bill has continued be active in research and publishing. Since retiring, he has produced (with Ron Wittmann), the 2nd, 3rd, and 4th editions of Colorado Flora: Eastern Slope and Colorado Flora: Western Slope (4th ed. , 2012). Other books published since his retirement include Catalog of the Colorado Flora: a Biodiversity Baseline, King of Colorado Botany: Charles Christopher Parry, 1823–1890, A Rocky Mountain Lichen Primer [with J. N. Corbridge], The American Cockerell: A Naturalist's Life, 1860–1948, The Valley of the Second Sons: Letters from Theodore Dru Alison Cockerell..., and Bryophytes of Colorado: Mosses, Liverworts, and Hornworts [with R. C. Wittmann]. He is currently working on his memoirs and a paper on mosses with his daughter, Linna. There is an exhibit about Bill's life, "The Naturalist," that is currently on display in CU's Norlin Library, 2nd floor (Science).*

## The Flies, Birds, and Bees That Pollinate Our Wildflowers

### David Inouye 11:00-11:30 a.m.

Although they don't receive the attention that bees do, flies are actually important pollinators of many wildflowers in Colorado. Their diversity is greater than that of bees, and particularly at higher altitudes they compete with bumble bees as the most common and important pollinators. I'll describe some of this diversity and their activities as pollinators (including a mosquito that pollinates an orchid). We also have several common species of hummingbirds in the Colorado Rockies, and I'll talk about some of what we've learned about them as pollinators and some of the flowers they pollinate. A lot of what we know about pollination in Colorado comes from research at the Rocky Mountain Biological Laboratory, near Crested Butte, where researchers come each summer from around the country, and sometimes overseas, to work with the plants and pollinators.



Photo Courtesy of David Inouye

*David retired recently from teaching at the University of Maryland, but continues his long-term research at the Rocky Mountain Biological Laboratory, at 9,500 feet near Crested Butte. He works there on wildflowers and the pollinators and seed predators that interact with them. Since 1973 he and his collaborators have followed the phenology (timing) and abundance of flowering of 120 different species, providing one of the oldest and most complete records of flowering in the context of climate change. He also has ongoing studies of the demography of three species, following tagged individual plants that they have followed since as far back as 1973. This summer he's been collaborating on three different studies of hummingbirds and helping a BBC film crew to get video of rufous hummingbirds. David now spends winters near Paonia, Colorado, and the field season at RMBL. He does a lot of photography of wildflowers and pollinators, and enjoys hiking and fishing with his family. There is an article from High Country News about David's work, "Zen and the Art of Wildflower Science," reprinted in the Spring/Summer 2016 issue of Aquilegia.*

## Alpine Plants and the Changing Environment

**Bill Bowman 11:35 – 11:55 a.m.**

Plants of alpine tundra experience a very short growing season, during which sub-freezing temperatures, high winds, and dry soils may occur. These seemingly harsh conditions are the norm for alpine plants, which have evolved traits allowing them to persist, when many of us would rather head downhill. However, their adaptations to this cold environment may increase their susceptibility to climate change and air pollution. In addition, multiple species of non-native species, previously held in check by the alpine environment, are poised and ready to invade the alpine. To date however few changes in the abundance and composition of alpine plant communities on Niwot Ridge have been recorded, and experiments demonstrate a surprising resilience of the plants to realistic simulations of changes in climate and pollution. However, long-term changes are often poorly predicted by short-term experiments, and it is likely in the next several decades that thresholds for biological change in the alpine will be crossed as a result of combinations of environmental stresses.



Photo Courtesy of Bill Bowman

*Bill Bowman is the Director of the University of Colorado's Mountain Research Station, part of the Institute of Arctic and Alpine Research, and a Professor in the Department of Ecology and Evolutionary Biology. His research focuses on plant-soil interactions, community ecology, and biogeochemistry. He has authored over 85 journal articles and book chapters, and two books, a review of alpine ecosystem structure and function, and a general ecology text book.*



Photo courtesy of George Maentz

### **Tass Kelso: A Remarkable Life**

**Dave Anderson & Jill Handwerk 12:00 - 12:10 p.m.**

This year the Colorado botany community lost an amazing botanist and long-time CoNPS member, Tass Kelso, to pancreatic cancer. Tass, a biology professor at Colorado College, was loved and respected by her students and colleagues. We would like to take some time at the conference to remember this remarkable person.

*Dave Anderson is the Executive Director, and Jill Handwerk is a Botanist with the Colorado Natural Heritage Program (CNHP).*

## **Return of the Native      Panayoti Kelaidis 1:15 – 1:35 p.m.**

The history of native plants in the local horticultural industry will be explored, from the time of Darwin Andrews in Boulder and Kathleen Marriage in Colorado Springs in the early 1900s, to the beginning of their "mainstreaming" through the work of George Kelley in Littleton and Harry Swift in Golden. We will take a look at the prominence of native collections at Denver Botanic Gardens beginning with Gayle Weinstein and Rick Brune, and expanding greatly under the guidance of Dan Johnson. The contributions of Jim Borland, Bob Nold, Betsy Baldwin, and Larry Schlickemeyer will also be noted.



Photo Courtesy of Panayoti Kelaidis

*Panayoti Kelaidis is a plant explorer, gardener and public garden administrator associated with Denver Botanic Gardens where he is now Senior Curator and Director of Outreach. He has designed plantings for many of the gardens at DBG; he is particularly noted for the plantings of the Rock Alpine Garden. He has introduced hundreds of native ornamentals from throughout the Western United States to general horticulture. Many of his plant introductions are available through Plant Select®, (a plant introduction program he helped launch along with staff from Colorado State University and nurseries across America). He has published widely in popular and technical horticultural journals. In 2002 he received the National Garden Clubs Medal of Honor. He has received four awards from the North American Rock Garden Society. In 2004 he was inducted into the Colorado Nursery and Greenhouse Association's Hall of Fame. In 2009 he received the Liberty Hyde Bailey Award of the American Horticultural Society. Panayoti has spearheaded the publication of four books at Denver Botanic Gardens: Rocky Mountain Alpines, Gardening with Altitude, Flourish and most recently Steppes, The Plants and Ecology of the World's Semi Arid Regions.*

## **Forty Years of Progress in Pollination Biology, and What It Means for Citizen Scientists** **Nick Waser & Mary Price 1:40 – 2:10 p.m.**

The pollination of flowers by animals is a ubiquitous ecological interaction of irreplaceable value to humanity. Scientists studying this interaction began early on to look for ways to classify the remarkable diversity of flowers, and eventually proposed that many flowers can be grouped according to presumed reciprocal specialization with a particular type of pollinator. But recent research indicates that nature is richer than such a classification suggests. The longer we study a given plant species, the more types of pollinators we see, as an example from the Colorado Rocky Mountains illustrates. Studies of entire ecological communities show that plants and pollinators are richly connected in a network of interactions, and that the interactions change over time even within a single season. Furthermore, recent experiments indicate that pollinator diversity matters—the rich connections improve the quality of pollination services to plants. These results suggest roles for us as citizens, both in educating others and in designing our own gardens. Let us abandon the classical idea that each plant has “its pollinator”, recognizing the existence and value of pollinator diversity. In seeking to promote diversity let us recognize that “pollinator decline” does not refer only to introduced honey bees, but also to native bees and other pollinators. The common perception that “all pollinators are bees and all bees are honey bees” is incorrect, and indeed the keeping of honey bees poses some unappreciated but very real dangers for native bees.



Photo Courtesy of Nick Waser

*Nick Waser and Mary Price are partners not only in life, but also in science. After meeting in graduate school they split a single faculty position at the University of California, Riverside, at a time when few schools would hire couples. At UCR Nick and Mary pursued individual research programs in pollination and desert ecology, but also collaborated in teaching and research, spending summers studying plant-pollinator interactions at the Rocky Mountain Biological Laboratory in western Colorado. They continued these activities after leaving UCR and moving to Tucson, Arizona. In the intervening years they have taught graduate-level field courses in tropical Africa, mentored undergraduate research students at the RMBL, written ecology chapters for a college-level biology textbook, and published articles on the pollination and population biology of native Colorado wildflowers.*

## **Forty Years of Change at Rocky Mountain National Park - John Emerick 2:15 – 2:35 p.m.**

Rocky Mountain National Park is one of our country's most popular natural reserves, with several million visitors coming each year to behold its wild & scenic treasures. But over the past forty years, the park has experienced many changes. In 1976, there were about 1000 head of elk in Rocky. By 1989 there were 3,000 head, and over 4,000 head in 1995. Although numbers of elk have fallen precipitously since then, past resource use by elk has greatly altered riparian ecosystems, habitat for many other species. In addition, in what some have termed a “perfect storm,” overgrown forests, a hotter and drier climate, and untold numbers of mountain pine beetles have combined to change the nature of much of Rocky's forest lands for decades to come. Having taught summer field seminars in Rocky Mountain National Park since the late 1970s, John will share some of his thoughts about these changes and what the future might hold for Rocky in the coming decade.



Photo Courtesy of John Emerick

*John Emerick is an ecologist, author, and retired professor from the Environmental Sciences and Engineering Department at the Colorado School of Mines. He holds M.A. & Ph.D. degrees in Environmental Biology from the University of Colorado, and a B.S. in Fisheries Biology from the University of Washington, Seattle. Following his retirement from the Colorado School of Mines, he became a full-time resident of the Roaring Fork Valley, and has continued to lead field seminars on Colorado ecology during the summers for the Rocky Mountain Conservancy and other organizations. The Conservancy has recently published the second edition of his book Rocky Mountain National Park Natural History Handbook.*

## Where has Plant Ecology Gone since 1976?

**David Buckner 2:40 – 3:00 p.m.**

The subject of study of Plant Ecology is young. In its infancy, at the turn of the 20th Century, it had (in America) been dominated by those with strong field botany backgrounds who made observations on the subject of progressive change of plant community through time and varying environments. The concept of plant community and the organic nature of its existence were central to the discipline through the first half of the 20th Century. A revolution brewed in the decades after mid-century that saw the existing views as “non-scientific” and, via statistical analysis / manipulation, sought to establish that plant community was only a coincidental aggregation of species that are arranged along environmental gradients and changing, if at all, in real time. The coincidental advent of technological advances in laboratory methods and especially the availability of computers has largely taken the study of plant ecology further away from its field roots into laboratory-based theoretical modeling. A brief review of this history and an argument for reintroduction and re-emphasis of field understanding of the Flora and its interactive and dynamic nature through time will be set forth.

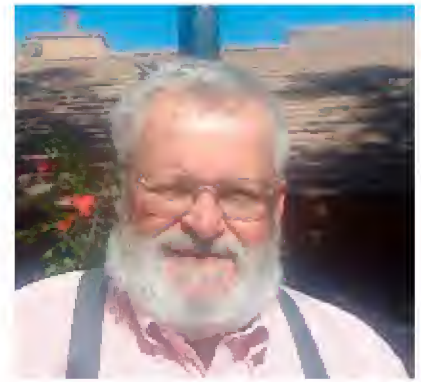


Photo © Sandy Buckner

*David Buckner attended the University of Colorado and was granted B.A., M.A., and Ph.D. degrees. His major professor at C.U. was Dr. John W. Marr, one the last American Dynamic Ecologists and a superb field plant ecologist. David followed his mentor's encouragement to avoid recycling into academia and instead use ecological understanding and study techniques to address real world problems. He has worked primarily in the western U.S. since 1969 applying ecological study to the understanding of both ecosystem reconstruction after disturbance and an enhanced knowledge of native / natural vegetation. He is a Charter Member (as was John Marr) and has participated in educational efforts by CONPS for many years.*

## Botany Is Not Dead But This Plant Is: the Importance of Herbaria and Regional Floras for the 21st Century and Beyond

**Jennifer Ackerfield 3:05-3:25 p.m.**

There is a current misconception that botany is dead. In spite of the fact that the number of students studying botany decreases each year and that many herbaria are closing their doors, botany is in fact not dead but very much alive. People will always be fascinated by plants, and our innate curiosity will ensure that botany and plant identification is here to stay. In addition, as our understanding of the interconnectedness all around us continues to grow, and botanists continue to fill in gaps in the Tree of Life, we can continue to inspire future generations of botanists to study plant identification and taxonomy. Regional floras documenting floristic diversity are also necessary, and it is important that these floras reflect a modern phylogenetic framework. Botany is indeed not dead (but this herbarium specimen is)!

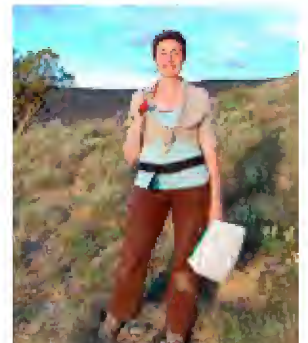


Photo Courtesy of  
Jennifer Ackerfield

*Jennifer Ackerfield is a curator at the Colorado State University (CSU) Herbarium and author of the Flora of Colorado. She has been studying the flora of Colorado over 20 years, and has traveled extensively across the state of Colorado documenting its rich floristic diversity. She also teaches Plant Identification and Grass Taxonomy at CSU, and is passionate about educating students on the wonderful world of botany. She received her Master's in Botany with a concentration in taxonomy and systematics in 2001 and is currently working on her PhD in Botany, studying the taxonomy and evolution of the genus Cirsium (thistles) in North America. Jennifer has worked with the Colorado Native Plant Society, Colorado Natural Heritage Program, U.S. Forest Service, Colorado BLM, and Mesa Verde National Park. She is also the mother of two wonderful twins, and in her spare time enjoys hiking, photographing wildflowers, rockhounding, painting, and botanical illustration.*

## Who We Are Is What We Leave Behind

**Jack Carter 3:50 - 4:10 p.m.**

Is the larger society providing tender loving care for our small part of Planet Earth? Do we understand that this is the place where future generations of all living organisms must survive and live their lives? There is no other known planet where the organisms that live on this earth can make a home for themselves. We have tried our best to explain why you can't remove 75 or 80 percent of the Earth's flora, and permit one weed-like species, one large mammal, to reproduce until it crowds out most other organisms. Humankind has failed to recognize that green plants have a very special place on Planet Earth.



Photo Courtesy of Jack Carter

*Jack L. Carter is professor emeritus of biology, Colorado College, Colorado Springs. He is the author of Trees and Shrubs of Colorado, Trees and Shrubs of New Mexico, and Common Southwestern Native Plants. Jack was Associate Director then Director of BSCS for six years. He was a Biology Professor at Colorado College and the Colorado College Herbarium is named in his honor. His enthusiasm for the flora of Colorado, New Mexico and the Southwest has taken him and his students on numerous field trips throughout the region.*

## BOTANY TRACK

### Using Course-Based Research Experiences to Advance Our Understanding of the Flora of Colorado

**Leo Bruederle 4:15 - 4:35 p.m.**

It is widely recognized that college students benefit from having research experiences integrated into their academic programs. However, limited resources and reductions in state funding with all of its implications impact the ability of public colleges and universities to provide these experiences. Course-based research experiences provide a mechanism by which a relatively large number of students may have a research experience. Over the past several years, I have been providing a course-based research experience to students in Flora of Colorado, an elective for undergraduate and graduate students enrolled in Integrative Biology at the University of Colorado Denver. Identifying "real" research problems that contribute to a better understanding of the flora of Colorado has benefited from the plethora of anecdotal information provided in our local, state, and regional floras. Thus far, students in Flora of Colorado have compiled floras, conducted gap analyses, examined species limits, tested hypotheses of hybridization, and assessed floristic affinities. In so doing, they have applied their knowledge and skills to solve a research problem, while also learning about career opportunities in botany and field biology. This model, which is widely applicable, will be discussed, along with outcomes from the aforementioned research projects.



Photo Courtesy of Leo Bruederle

*Leo P. Bruederle is Associate Professor in the Department of Integrative Biology at the University of Colorado Denver and Acting Director of Undergraduate Research and Creative Activity (URCA) in the Office of Undergraduate Experiences. Leo earned his MS in Botany from the University of Wisconsin Milwaukee and his PhD in Botany from Rutgers University. His research interests include the systematics of species-rich plant genera, while his pedagogical interests include undergraduate research, especially course-based undergraduate research experiences. Leo has received funding supporting his scholarly activities from the National Science Foundation, US Fish & Wildlife Services, and The Nature Conservancy, among other agencies.*

## BOTANY TRACK

### Lightning Talks by University Students 4:40 - 5:00 p.m.

A number of university students will share the results of their research in these quick-paced talks.

## HORTICULTURE TRACK

### Benefits of Native Plants in the Garden

**Irene Shonle 3:50 - 4:10 p.m.**

Native plants provide many benefits, from water conservation to a sense of place to providing habitat for birds and pollinators. Learn more about the value of including more natives in your yard in this session.

*Irene Shonle is the Director of CSU Extension in Gilpin County, and the Vice President for CoNPS. She is passionate about native plants, and has taught all over the state, including for the Native Plant Master® Program, for the Denver Botanic Gardens, the Colorado Weed Management Association, and for various landscaping conferences.*



Photo Courtesy of Irene Shonle

## HORTICULTURE TRACK

### Conservation of Colorado Flora on Rooftops

**Jen Boussetot 4:15 - 4:35 p.m.**

Rooftops are often overlooked as available space in our landscapes. Green roof systems have been researched and evaluated over decades and are viable in climates all over the world, including Colorado. Green roofs are an innovative way to bring more green space and biodiversity into our urban areas and can be used to conserve rare or imperiled Colorado native flora. See examples of Colorado green roofs that already use native plants and discuss the possibilities for the future.



Photo by Aaron Boussetot

*Jen Boussetot is the CoNPS Membership and Marketing Coordinator and teaches classes at Colorado State University in the Department of Horticulture and Landscape Architecture. Jen completed her doctorate research studying green roof species selection, including Colorado native plants, and substrate compositions at Colorado State University in 2010. Jen has taught both homeowner and college-level horticultural courses and managed Master Gardener programs in two states over the past 15 years.*

## HORTICULTURE TRACK

### Installing Colorado Native Plants in the Landscape

**Alison Peck 4:40 - 5:00 p.m.**

From a single bed to an entire landscape, creating a native plant landscape is different than installing a standard bluegrass lawn. Come learn about "big picture" fundamentals and crucial details that will help you endure fewer trials and enjoy more triumphs. We'll start with an overview of the many types of native plant landscapes; then we'll dig into installation, starting in the soil and moving through plant selection, planting, irrigation and mulching.

*Alison Peck founded Matrix Gardens in 1984 and is a landscape designer practicing, teaching and writing about xeriscapes, permaculture, native plants, habitat gardens, edible landscaping, sustainable landscaping and drip irrigation. She teaches Landscape Design and Sustainable Horticulture at Front Range Community College.*



Photo Courtesy of Alison Peck

On March 12, 2016, the Landscaping with Colorado Native Plants Conference was held in Loveland by the Front Range Chapter of Wild Ones, Colorado Native Plant Society, Butterfly Pavilion, Colorado State University Extension & Colorado Native Plant Master Program®, Denver Botanic Gardens, High Plains Environmental Center, and Front Range Sustainable Landscaping Coalition. In 2016, CoNPS offered two native plant garden tours and two online plant sales. Native plant horticulture has always been a focus of CoNPS.

# ANNUAL CONFERENCE FIELD TRIPS

Sunday, September 25

Sign up will be Online Only

Sign up for a Sunday Field Trip from 9:00 a.m. - noon or except as noted.

**YOU MUST REGISTER FOR THE CONFERENCE FIRST  
BEFORE YOU CAN CHOOSE YOUR FIELD TRIP.**

**FIELD TRIPS:** All of the field trips are free, but have limited space, so sign up early. Field trips will take place at the same time except as noted. Participants will only be able to go on one morning field trip. You can sign up for more than one afternoon tour. Once the field trip limit has been reached, that field trip will be closed but you can add your name to the waiting list. Meet at trailheads (not a central location). Directions to the trailheads will be emailed to participants before the conference.

**Be sure to bring water and snacks or lunch. You may also want sunscreen and a hat, a hand lens, and a copy of *Colorado Flora* and/or *Flora of Colorado*.**

## MORNING FIELD TRIPS 9:00 a.m. - Noon

### **Bee-Watching at Denver Botanical Garden (DBG) at Chatfield Carol Kearns and Diana Oliveras (Limit 15) 9 a.m. - Noon**

Join us for an easy walk in a local park to watch bees and to learn to identify some common bee species. No equipment needed, although a hand lens can be useful. Meet at the DBG Chatfield parking lot at 9:00 a.m.

We will be hand-netting bees on the flowers in the Chatfield gardens. Bees will be placed in vials and then chilled in coolers to slow their metabolism and reduce their movement. Then we will examine and identify the bees based on color patterns, size, and the location of their pollen-collecting structures. While the bees are quiet, there will be opportunities to take close-up photographs. Ultimately, we will allow the bees to warm up, and we will release them unharmed.

*Carol Kearns Ph.D. and Diana Oliveras Ph.D. have been working together studying Front Range pollinators since 2001. Carol is a pollination biologist who co-authored (with James Thomson) The Natural History of Bumblebees, and (with David Inouye) Techniques for Pollination Biologists. Diana's doctorate is in the field of plant reproductive biology, and her current research focuses on pollinators. Both are faculty members at the University of Colorado, Boulder. Together they have published papers on Front Range pollinators and have hosted many talks and workshops on pollination.*

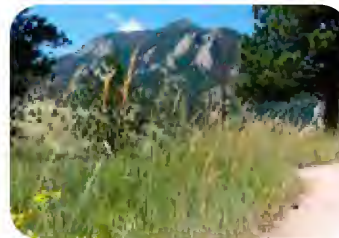


Diana (Left) Carol (Right)  
Photo © Anna Sher

### **Exploring the Foothills Forest - Shortgrass Prairie Transition: A Visit to Boulder Mountain Parks**

**John Emerick (Limit 15 people) 9 a.m. - Noon**

During the field trip we will discuss ecological aspects of the very diverse native habitats in the foothills - shortgrass prairie transition as seen along the trail. Topics will include plant community composition, relationships with geology, soils, hydrology, and climate, and the role of key wildlife species.



Mesa Trail  
Photo © Jan L. Turner



Photo Courtesy of  
John Emerick

The field trip begins at the NCAR Parking lot. We will be walking along the Mesa Trail between the South Mesa and Chautauqua trail heads, and possibly short distances along adjoining trails.

*John Emerick is an ecologist, author, & retired professor from the Colorado School of Mines.*

## Keying the Plants of Autumn

### Jennifer Ackerfield (Limit 15) 9 - Noon

Jen will be leading a field trip in the Boulder area. Her field trips are always very popular and you can expect Jen to help you key out some of the more challenging plants of late September such as members of the Asteraceae and Poaceae families. Be sure and bring along a copy of Ackerfield's Flora of Colorado and/or Weber & Wittmann's Colorado Flora: Eastern Slope. The location of the field trip has not been announced yet. Stay tuned.



*Jen Ackerfield is the author of Flora of Colorado, the first key plus manual (with descriptions of plants and distribution maps) for the state of Colorado since H.D. Harrington's Manual of the Plants of Colorado in 1954.*

Photo Courtesy Jen Ackerfield

## Ancient Big Bluestem Grasslands of the South Boulder Area

### David Buckner (Limit 15) 9 a.m. - Noon

We will visit examples of the big bluestem grasslands that occur on the very old soils along a 2.2 million year time sequence. These grasslands demonstrate some very interesting (and controversial) insights into the nature of plant community over long periods of time.

Meet at 1077 South Cherryvale Road in Boulder; we will attempt to carpool from there to the nearby old grassland sites.

*David Buckner attended the University of Colorado and was granted B.A., M.A., and Ph.D. degrees. His major professor at C.U. was Dr. John W. Marr, one the last American Dynamic Ecologists and a superb field plant ecologist. David followed his mentor's encouragement to avoid recycling into academia and instead use ecological understanding and study techniques to address real world problems. He has worked primarily in the western U.S. since 1969 applying ecological study to the understanding of both ecosystem reconstruction after disturbance and an enhanced knowledge of native / natural vegetation. He is a Charter Member (as was John Marr) and has participated in educational efforts by CoNPS for many years.*



Grassland

Photo © David Buckner

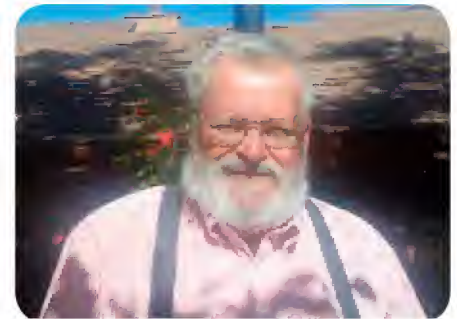


Photo © Sandy Buckner

## Courtyard MacAllister Building



## MacAllister Building





Photos courtesy Susan Spackman Panjabi

## **Rabbit Mountain Open Space, Boulder, Susan Spackman Panjabi (Limit 15) 9 a.m. - Noon**

Please meet at 9:00 at the Rabbit Mountain Open Space parking lot, which is accessed by heading north on N 53rd St. off of Route 66, between Longmont and Lyons. Please wear long pants, closed toe hiking shoes, and bring plenty of water and snacks.

The Colorado Natural Heritage Program recognizes Rabbit Mountain as a site of Outstanding Biodiversity Significance because of its concentration of globally rare plant communities that are in good to excellent condition. Rabbit Mountain also supports several rare plant populations, including Bell's twinpod (*Physaria bellii*), Wavy-leaf stickleaf (*Mentzelia sinuata*), and Forktip three-awn (*Aristida basiramea*).

Rabbit Mountain is found along the major series of north-south trending hogbacks that span much of Larimer County to the north, and Boulder County to the south. The hogbacks are composed of multiple sedimentary bedrock layers which exert a strong influence on the vegetation patterns that occur on the site, expressed primarily as an extensive mosaic of piedmont grassland, foothill shrubland, and ponderosa pine savanna habitats.

We will focus on making observations of the geology, dominant plant communities, and identifying herbaceous plants that are in flower or fruit. Narrow-leaved milkweed (*Asclepias stenophylla*) was last documented in this area in 1948, so we will certainly be keeping an eye out for it! An emphasis will be placed on recognizing plant families, especially the Asteraceae.

*Susan has worked as a Botanist with the Colorado Natural Heritage Program at Colorado State University for over 20 years, and is the primary author of the Colorado Rare Plant Guide, available on-line.*

## **University of Colorado Herbarium Tour - Tim Hogan (Limit 15)**

### **9:00 - Noon**

The herbarium will be available for visiting from 9:00 a.m. till noon, with a more formal presentation taking place starting at 10:00. This will be directed toward those who have never used an herbarium, for those who would like to hear about the various ways in which collections are used, and why specimens are fundamental to our understanding of biodiversity.

The University of Colorado Herbarium (COLO) is not in the main Museum, but is about 10 minutes away in the basement of the Clare Small Bldg., just north of Norlin Library. Please enter through the south facing doors. Once inside, walk into the main hallway, take a left, and proceed down the hallway a short distance to a flight of stairs. The herbarium is in the basement, so proceed down the set of stairs which GO DOWN into the herbarium. The most convenient place to park is on University Avenue. On Sundays there is no charge. For the location of the building, refer to the campus map at <http://www.colorado.edu/campusmap/map.pdf>

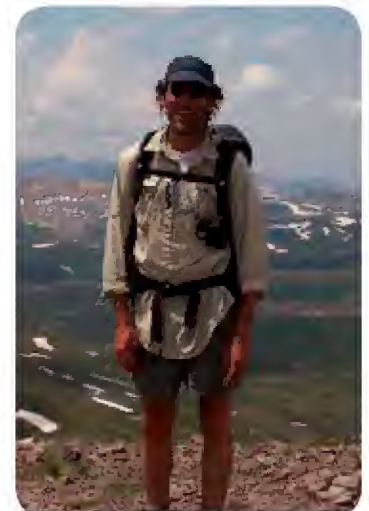


Photo Courtesy of  
Tim Hogan

*Tim Hogan is one of the collection managers in the herbarium and will be hosting the tour. He has worked in the herbarium and pursued botanical field studies in Colorado for thirty years.*

## Fall Colors and Tallgrass Prairie Biodiversity 9 - 12 Lynn Riedel & Lynne Sullivan (Limit 20 people)

Get an up-close look at one of the rarest tallgrass prairie communities in North America when the fall tallgrass colors are at their height. Learn about how geology plays into the formation of this remarkable community, and how the City of Boulder Open Space and Mountain Parks (OSMP) approaches long term conservation of tallgrass prairie. Botanizing is on the agenda, too, of course!

Moderate difficulty – mostly flat ground to fairly gentle slopes, very rocky.

Meet at Flatirons Vista/Doudy Draw Trailhead - west of Highway 93, South of Boulder. We will carpool to a nearby parking spot.

*Lynn Riedel is a Plant Ecologist and Lynne Sullivan is an Education Coordinator for the City of Boulder Open Space & Mountain Parks (OSMP).*

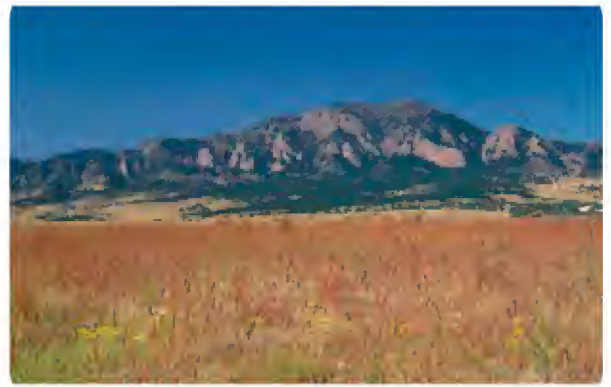


Photo courtesy of Lynn Riedel

## Ranson/Edwards Homestead Open Space Tom Schweich (Limit 15) 9 - Noon

Ranson/Edwards Homestead Open Space is a unit of Coal Creek Canyon Park in northernmost Jefferson County, just west of Rocky Flats. Vegetation types include mixed prairie and montane forest. In late September, we should find mostly warm season grasses and composites and maybe a few gentians. We will consolidate cars at the meeting point and make several stops with short forays into the grasslands and ponderosa pine woodland.

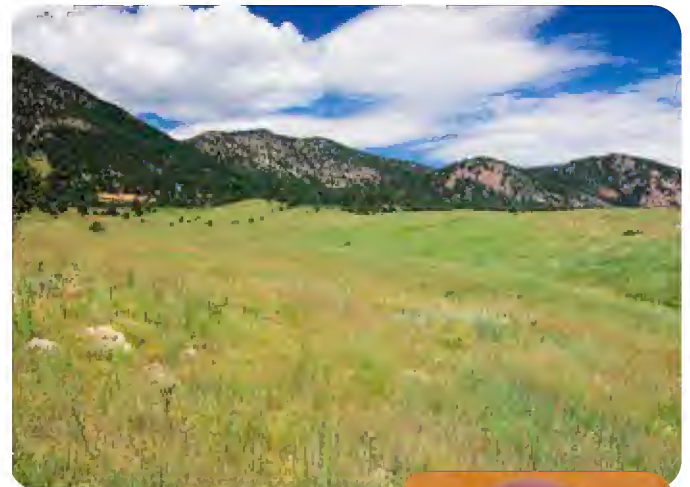
There are no facilities of any kind at this park. Be sure to bring supplies, such as water, snacks, sunscreen, etc., to be self-reliant for the morning.

Meeting point: Dirt parking area on Plainview Road just north of Colorado Highway 72, (Coal Creek Canyon Road).

Directions: From Boulder, take Colorado Highway 93 south 11.2 miles south, turn right (west) on Colorado Highway 72 (Coal Creek Canyon Road), go west 1.8 miles, turn right on Plainview Road, and look for our group in the dirt parking area on the left.

From Denver, take US I-70 and Colorado Highway 58 west 17 miles to Colorado Highway 93, turn right (north) and proceed 10 miles to Colorado Highway 72 (Coal Creek Canyon Road), turn left and proceed 1.8 miles west to Plainview Road, turn right and look for our group in the dirt parking area on the left.

*Tom is a recent introduction to the Colorado flora. He was a curatorial volunteer at the University of California Berkeley and Jepson Herbaria for many years, and a board member of the California Botanical Society. His field work began in what is now Mojave National Preserve, and includes seven years of collecting in the Mono Lake basin, California. He is now collecting for a second season in northern Jefferson County including the areas around Golden, North Table Mountain, and Ranson/Edwards Homestead Open Space.*



Photos Courtesy of  
Tom Schweich

## ALL DAY FIELD TRIP 9 a.m. - 5 p.m.

### Secrets of Castlewood Canyon - Jeanne Willson (Limit 15) 9 - 5

Worth the drive! Castlewood Canyon has amazing canyons, fall flowers, odd geology, human history, shady Douglas firs, rock scrambling, fall berries (watch out for poison ivy berries), and so much more. Prepare for a long day with food, water, and your camera. The hike is about 7 miles but we will have many stops to see caves, ancient flood plains, colorful minerals, regional geology, a variety of galls, and much more.

Meet at 9 a.m. at the main parking lot of Castlewood Canyon State Park.

Address: 2989 Colorado 83, Franktown, CO 80116. From Denver: follow I-25 south, exit left (east) onto CO 86, follow east to Franktown and turn right (south) onto CO 83 (Castlewood Canyon Rd) and follow 7.8 miles to park entrance. Be sure to drive SOUTH to the southern end without turning until you get to the sign for Castlewood, on Rt 83 (DO NOT come in to the north end). However, please enter the pay station (about \$7) and continue into the park; meet at the far end of the large parking lot and please call if you have questions, trouble, or can't come. My cell # is 720-581-2052. Note: Annual State Park Pass or \$7/car Day Pass required. *This park is approx. 1 hour 20 minutes SE of Boulder*

*Jeanne Willson has a doctorate in botany from Cornell University where she studied toxic plants and their effects on wildlife. She is a former co-president of the Metro Denver Chapter of CoNPS and teaches short courses at the Denver Museum of Nature and Science in botany and paleobotany.*



Photos courtesy of Jeanne Willson

## AFTERNOON TOURS AND WORKING FIELD TRIP - Start at 1 p.m.

### Tallgrass Seed Collection in Boulder's Prairies: A Working Field Trip - Lynn Riedel & Amy Ansari (Limit 20) 1:00 p.m. - 4:00 p.m.

Enjoy an afternoon in tallgrass prairie while helping to build up the stock of local native plant seed that is used in City of Boulder OSMP habitat restoration projects. This will be an opportunity to learn about rare tallgrass prairie communities in the Boulder area, and to enjoy fall prairie colors. Tallgrass seed collection is a peaceful, relaxing way to give yourself a break in a beautiful place and to contribute to tallgrass prairie conservation work.

Meeting location will be announced at the Annual Conference, and maps will be provided. Since it is necessary to evaluate seed readiness and appropriate collection sites close to the date of a seed collection, the location will be determined during the week or two before the collection.

Easy to moderate difficulty – mostly flat ground with some uneven surfaces.

*Lynn Riedel is a Plant Ecologist with Boulder OSMP. Amy Ansari is Native Seed Collection Program Manager for Wildlands Restoration Volunteers.*



Photo Courtesy of Lynn Riedel

### **Aquilegia Vol.40 No. 2 Annual Conference Issue**

Jan & Charlie Turner, Editors Layout & Design by Charlie & Jan Turner  
Linda Smith, Nan Daniels, and Jen Bousselot, Proofreading/Editing

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### **Conference Sales Committee**

Patrick Murphy, Linda Smith, Denise Wilson

### **2016 Annual Conference Planning Committee**

Lenore Mitchell & Jan L. Turner (co-chairs), Jen Bousselot, Irene Shonle, Tom Schweich, Jessica Smith, Jannette Wesley, Catherine Kleier, Steve Olson, and Denise Wilson. Committee volunteers include Cecily Mui, Don Parker, BethAnne Bane, Kathy Brown, Becky Taylor, Lexine Long, Carol English, Mo Ewing...and hopefully YOU! If you would like to volunteer to help at the conference, please contact Lenore Mitchell at zap979sar@icloud.com. If you would like to volunteer as a reporter or photographer at the conference, please contact Jan Turner at JLTurner@regis.edu.

## **Tour of High Plains Environmental Center & Plant Sale 1 p.m. - 4 p.m. Jim Tolstrup (No Limit), Loveland**

The High Plains Environmental Center (HPEC) is a unique collaboration between a developer (McWhinney) and a non-profit (501c3). The center consists of 76 acres and 3.5 miles of trails surrounding two lakes in a rapidly developing area. Formerly agricultural land, HPEC is in the process of transformation into an environmental park that combines horticulture and ecological restoration. HPEC is currently constructing an educational visitor center with a specific focus on conserving and restoring Colorado's unique, native, biodiversity in the midst of development. The center will demonstrate, through extensive gardens and exhibits, the benefits to wildlife and water conservation derived from the use of native plants in landscaping, open space, and urban storm water ponds. The HPEC nursery supplied most of the plants for the CoNPS online Native Plant Sales.

Participants in this field trip will have an opportunity to tour and buy plants from HPEC's native plant nursery.

Location: 4555 Long Pine Lake Drive, Loveland. Driving Directions: One mile north of the intersection of Hwy 34 and Boyd Lake Road. Turn right (east) at the Lakes at Centerra sign, onto Long Pine Lake, and drive to the end of the road.

*Jim Tolstrup is the Executive Director of the High Plains Environmental Center in Loveland, CO, a unique model for preserving native biodiversity in the midst of development. Jim works to promote the conservation, restoration and landscape use of native plants and is the Horticulture and Restoration Chair for the Colorado Native Plant Society.*

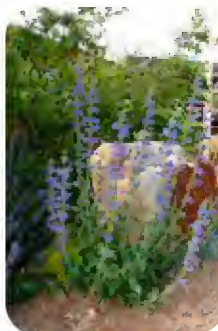


Photos Courtesy of  
Jim Tolstrup

## **Tour of Harlequin's Gardens & Plant Sale 2 to 4 p.m. Mikl Brawner (No Limit) Boulder**



Mikl Brawner & Eve Reshetnik Brawner performing at the CoNPS Anniversary Celebration on June 10, 2016 Photo © Loraine Yeatts

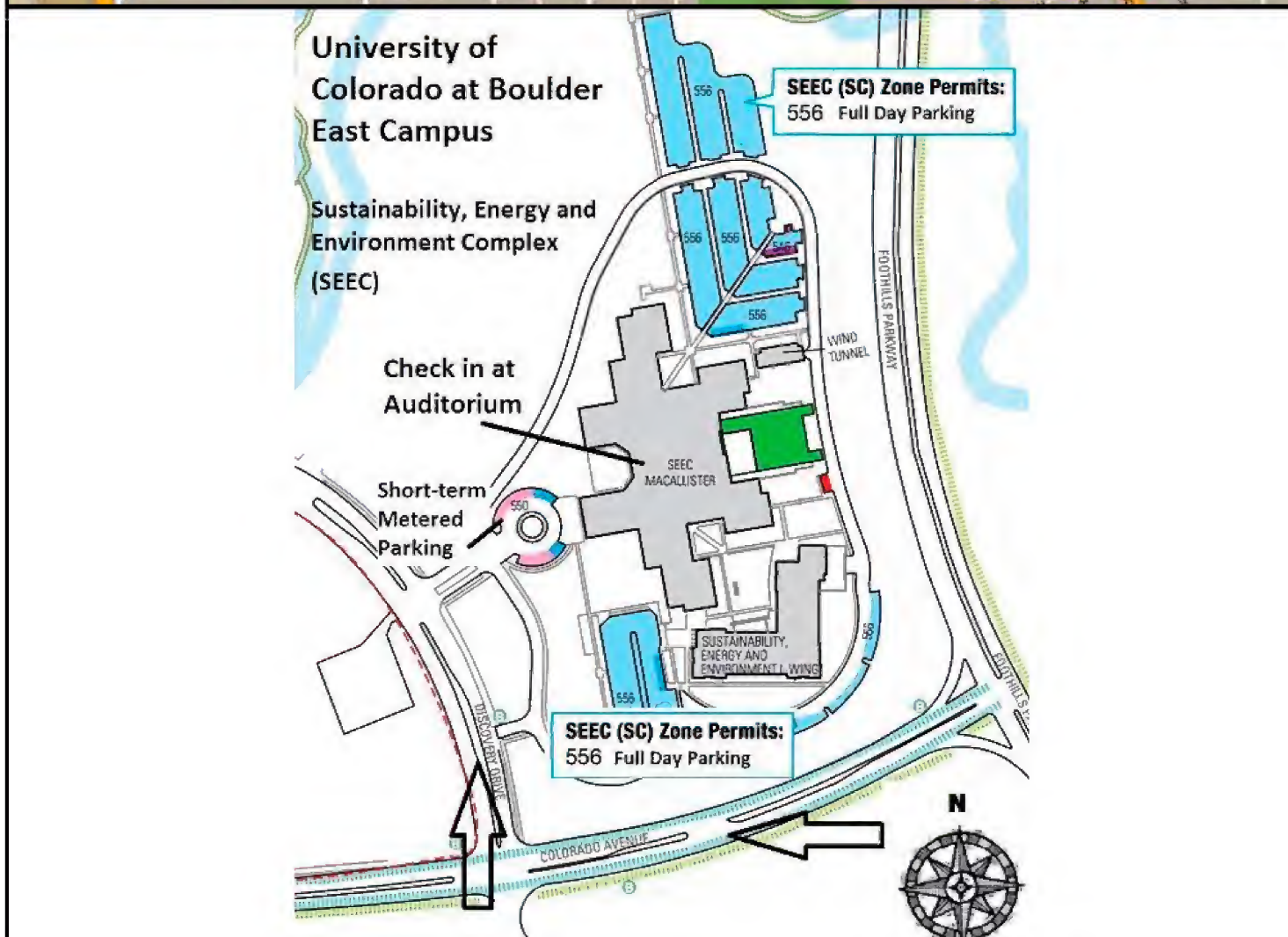
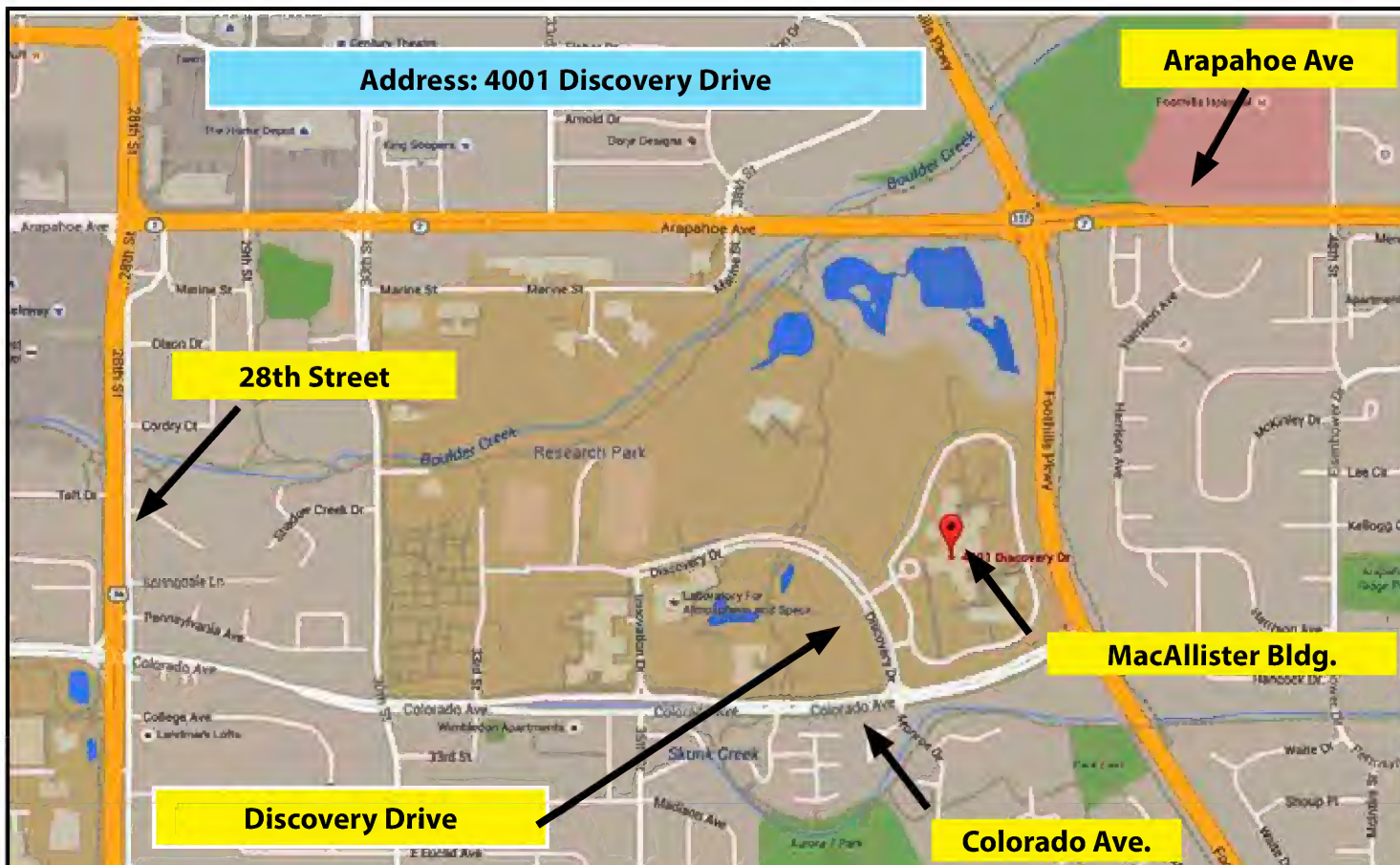


Photos Courtesy of Mikl Brawner

Mikl and Eve Brawner have developed extensive native plant landscaping around the Harlequin's Gardens facility. They grow and sell Colorado-adapted plants including local genotype native wildflowers, grasses, and shrubs, as well as hardy own-root roses, herbs & a great selection of unusual perennials. Participants in this field trip will have an opportunity to tour and buy plants from Harlequin's Gardens native plant nursery.

The address is 4795 N. 26th St. Boulder. Turn north off of 28th St onto N. 26th St; go along the dirt road for about  $\frac{3}{4}$  of a mile and the nursery is on your left.

*Mikl & Eve Brawner are the owners of Harlequin's Gardens, longtime members of CoNPS, and talented musicians. Mikl studied biology at Iowa State University and served in the Peace Corps in India. Mikl was honored with the 2009 PaceSetter Award for the Environment. Eve, with Mikl, designed the rose garden at the Boulder Dushanbe Tea House.*





## Colorado Native Plant Society

P.O. Box 200  
Fort Collins, Colorado 80522  
<http://www.conps.org>

*Early Registration Discount Deadline is  
August 28!*

### **Friday 9/23/2016**

13th Annual Colorado Rare  
Plant Symposium  
MacAllister Bldg.  
8:30 a.m. - 4:30 p.m.

Reception & CU Exhibits  
CU Natural History Museum  
RARE II Exhibit  
& Norlin Library 2nd floor  
"The Naturalist: W.A. Weber"  
Exhibit  
5- 7 p.m.

### **Saturday 9/24/2016**

40th Colorado Native Plant  
Society Annual Conference 2016  
MacAllister Bldg.  
8:15 a.m. - 5:00 p.m.

### **Evening Social**

MacAllister Bldg.  
5:00 p.m. - 7:00 p.m.

### **Sunday 9/25/2016**

Colorado Native Plant Society  
Field Trips  
9:00 a.m. - noon  
& 1-4 p.m.

**University of Colorado  
Sustainability, Energy, and  
Environment Complex (SEEC)  
MacAllister Building  
4001 Discovery Dr., Boulder,  
Colorado 80303**

